IN THE CLAIMS:

Please substitute the following amended claims 1, 5, 6, 8, 9, 10, 12, 22 and 24 for the pending claims having the same claim numbers:

1. (currently amended) A controlled nucleic acid delivery system, comprising nucleic acid-polylinker complexes immobilized to a support substrate, wherein said complexes are formed prior to attachment to the solid support, and wherein the nucleic acid-polylinker complex is capable of being delivered to cells cultured on the support substrate.

2. (original) The controlled nucleic acid delivery system of claim 1, wherein the nucleic acid-polylinker complexes are immobilized to the surface of a support substrate by a functional group attached to the polylinker.

3. (original) The controlled nucleic acid delivery system of claim 2, wherein the complexes may be covalently or non-covalently immobilized.

4. (original) The controlled nucleic acid delivery system of claim 3, wherein a percentage of the polylinker in the complexes is covalently attached to the support substrate and the remaining polylinker is bound to the nucleic acid but is not directly attached to the support substrate.

5. (currently amended) ~~The~~ A controlled nucleic acid delivery system ~~of claim 4~~ comprising nucleic acid-polylinker complexes, said complexes covalently or non-covalently immobilized to the surface of a support substrate by a functional group attached to the polylinker, wherein a percentage of the polylinker in the complexes is covalently attached to the support substrate and the remaining polylinker is bound to the nucleic acid but is not directly attached to the support substrate, and wherein the percentage of polylinker covalently attached to the support substrate is more than 0.2%,

and wherein the nucleic acid-polylinker complex is capable of being delivered to cells cultured on the support substrate.

6. (currently amended) The controlled nucleic acid delivery system of claim ~~3~~ 5, wherein the covalent bond is broken after a cell is plated on the surface of the support substrate.

7. (original) The controlled nucleic acid delivery system of claim 3, wherein a percentage of the polylinker in the complexes is non-covalently attached to the support substrate and the remaining polylinker is bound to the nucleic acid but is not directly attached to the support substrate.

8. (currently amended) The controlled nucleic acid delivery system of claim 7, wherein the complexes are formed by condensation of the nucleic acid with a ~~modified~~ polylinker chemically modified by a functional group that promotes attachment to the support substrate.

9. (currently amended) The controlled nucleic acid delivery system of claim 7, wherein the complexes are formed by condensation of the nucleic acid with a ~~non-modified~~ polylinker not chemically modified by a functional group.

10. (currently amended) The controlled nucleic acid delivery system of claim 7, wherein the complexes are formed by condensation of the nucleic acid with a mixture of non-chemically modified polylinker and chemically modified polylinker.

11. (original) The controlled nucleic acid delivery system of claim 1, wherein the nucleic acid is DNA, RNA, or an oligonucleotide.

12. (currently amended) A controlled nucleic acid delivery system ~~of claim 11~~, comprising nucleic acid-polylinker complexes immobilized to a support substrate,

wherein the nucleic acid is DNA, RNA, or an oligonucleotide, and wherein the oligonucleotide is an antisense oligonucleotide or a catalytic RNA capable of interfering with the expression of a gene, and wherein the nucleic acid-polylinker complex is capable of being delivered to cells cultured on the support substrate.

13. (original) The controlled nucleic acid delivery system of claim 1, wherein the polylinker is a cationic polymer, cationic lipid, cationic protein, or cationic peptide.

14. (original) The controlled nucleic acid delivery system of claim 1, wherein the support substrate of the invention is selected from the group consisting of glass, peptide polymers, collagen, peptoid polymers, polysaccharides, carbohydrates, hydrophobic polymers, polymers, tissue culture polystyrene, planar lipid layers, planar lipid bilayers, metals, derivatized plastic films, glass beads, plastic beads, alumina gels, magnetic beads, nitrocellulose, cellulose, nylon membranes, cotton, and glass wool.

15. (original) The controlled nucleic acid delivery system of claim 1, wherein nucleic acid delivery is controlled through (i) complex density at the surface of the support substrate, (ii) complex location on the surface of the support substrate, and (iii) the number of bonds linking the polylinkers in a complex to the solid support.

16. (original) The method of claim 15 wherein the linkages between the polylinker and the support substrate are reversible.

17. (original) The controlled nucleic acid delivery system of claim 15, wherein complex density ranges from 0.01 to 10.0 μg DNA/cm^2.

18. (original) The controlled nucleic acid delivery system of claim 15, wherein the polylinker is noncovalently bonded to the support substrate.

19. (original) The controlled nucleic acid delivery system of claim 1, wherein delivery of the nucleic acid-polylinker complex is through cell internalization of the released complex.

20. (original) A method of making the controlled nucleic acid delivery system of claim 1, comprising:

(a) contacting a nucleic acid with polylinkers; wherein the nucleic acid complexes with the polylinkers to form a condensed nucleic acid; and

(b) immobilizing the polylinker present in the complex to a support substrate, wherein delivery of the nucleic acid to a cell is controlled by (i) density and location of the complex on the surface of the support substrate, and (ii) the number of bonds linking the polylinkers in a complex to the solid support, wherein a desired release rate is achieved.

21. (original) The method of claim 20, wherein the attachment of the polylinker to the support substrate is reversible.

22. (currently amended) ~~The~~ A method of ~~claim 20,~~ making a controlled nucleic acid delivery system, comprising nucleic acid-polylinker complexes immobilized to a support substrate, wherein the nucleic acid-polylinker complex is capable of being delivered to cells cultured on the support substrate, said method comprising:

a) contacting a nucleic acid with polylinkers; wherein the nucleic acid complexes with the polylinkers to form a condensed nucleic acid; and

b) immobilizing the polylinker present in the complex to a support substrate, wherein delivery of the nucleic acid to a cell is controlled by (i) density and location of the complex on the surface of the support substrate, and (ii) the number of bonds linking the polylinkers in a complex to the solid support, wherein a desired release rate is achieved; and

wherein the polylinkers are modified with a first functional group prior to step (a) and wherein the support substrate is modified with a second functional group capable of interacting with the first functional group.

23. (original) The method of claim 20, wherein the nucleic acid is contacted with a mixture of modified and unmodified polylinkers.

24. (currently amended) ~~The~~ A method of ~~claim 20,~~ making a controlled nucleic acid delivery system, comprising nucleic acid-polylinker complexes immobilized to a support substrate, wherein the nucleic acid-polylinker complex is capable of being delivered to cells cultured on the support substrate, said method comprising:

a) contacting a nucleic acid with polylinkers; wherein the nucleic acid complexes with the polylinkers to form a condensed nucleic acid; and

b) immobilizing the polylinker present in the complex to a support substrate, wherein delivery of the nucleic acid to a cell is controlled by (i) density and location of the complex on the surface of the support substrate, and (ii) the number of bonds linking the polylinkers in a complex to the solid support, wherein a desired release rate is achieved; and

wherein the polylinkers are modified with a first functional group prior to step (a) and wherein the support substrate is modified with a second functional group capable of interacting with the first functional group, and wherein the polylinker is poly-L-lysine (PLL), the first functional group is biotin, and the second functional group is avidin or an avidin derivative.

25. (original) A method of spatially controlling the delivery of a nucleic acid to a cell comprising:

(a) modifying a polylinker with a first functional group;

(b) contacting a nucleic acid with modified polylinker; wherein the nucleic acid complexes with the polylinker to form a condensed nucleic acid; and

(c) immobilizing the nucleic acid-polylinker complex to a surface of a support substrate, wherein the surface of the support substrate is modified with a second functional group capable of interacting with the first functional group, and wherein complexes formed with modified polylinker are specifically bound to the support surface,

and wherein the specific binding of the complexes to the surface of the support substrate is located at specific regions of the substrate in a defined pattern.

26. (original) The method of claim 25, wherein the nucleic acid is contacted with modified and unmodified polylinker in step (a) and wherein the unmodified polylinker is ionically bound to the nucleic acid but is not bound to the support surface in step (c).

27. (original) The method of claim 26, wherein the substrate is a microtiter plate comprising multiple wells.

28. (original) A method of temporally controlling the delivery of a nucleic acid to a cell population comprising:

(a) modifying a polylinker with a first functional group;

(b) contacting a nucleic acid with modified polylinker; wherein the nucleic acid complexes with the polylinker to form a condensed nucleic acid; and

(c) immobilizing the nucleic acid-polylinker complex to a surface of a support substrate, wherein the surface of the support substrate is modified with a second functional group capable of interacting with the first functional group, and wherein complexes formed with modified polylinker are specifically bound to the support surface, and wherein the specifically bound complexes are released at desired times and internalized by a cell adhering to the surface of the support substrate.

29. (original) A method of temporally and spatially controlling the delivery of a nucleic acid to a cell population comprising:

(a) modifying a polylinker with a first functional group;

(b) contacting a nucleic acid with modified polylinker; wherein the nucleic acid complexes with the polylinker to form a condensed nucleic acid; and

(c) immobilizing the nucleic acid-polylinker complex to a surface of a support substrate, wherein the surface of the support substrate is modified with a second functional group capable of interacting with the first functional group, and wherein complexes formed with modified polylinker are specifically bound to the support surface

and located at specific regions of the substrate in a defined pattern, and wherein the specifically bound complexes are released at desired times and internalized by a cell adhering to the surface of the support substrate.